BRUHAT BANGALORE MAHANAGARA PALIKE

Excel Measurement Sheet

NAME OF WORK : PROVIDING PATHWAY CHILDREN PLAY EQUIPMENTS AND OTHER DEVELOPMENT WORKS IN PARK AT DODDABOMMASANDRA LAKE IN WARD 10

RA 1st and ~~FIR~~ Final Bill Abstract

SL.No	Item No.	Description Of Work	Quantity	Unit
		DBS		
1	1	Earth work excavation for foundation of structures upto 3 mtrs. by mechanical means as per drawing and technical specification, including setting out, providing shoring, strutting and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom, filling back the excavated earth to the extent required and utilising /transporting the remaining earth upto 1.00km lead. including cost of labour, materials and HOM etc., complete.		
		PREMEASURMENTS RECORDED AS PER PG NO 1	80.79	
		PREMEASURMENTS RECORDED AS PER PG NO 31	29.70	
		PREMEASURMENTS RECORDED AS PER PG NO 31	29.70	
		PREMEASURMENTS RECORDED AS PER PG NO 31	29.70	
		PREMEASURMENTS RECORDED AS PER PG NO 24	106.19	
		PREMEASURMENTS RECORDED AS PER PG NO 42	93.21	
		PREMEASURMENTS RECORDED AS PER PG NO 42	73.52	
		PREMEASURMENTS RECORDED AS PER PG NO 75	347.75	
		Total Quantity	**790.56**	Cum
2	3	Earth work for lowering and levelling the ground other than foundation works by mechanical means upto 3.00 depth, including providing shoring strutting and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom, filling back the excavated earth to the extent required & utilising/transporting the remaining earth upto 1.00 km lead. Including the cost of labour & HOM as per drawing and technical specification.		
		PREMEASURMENTS RECORDED AS PER PG NO 43	166.73	
		PREMEASURMENTS RECORDED AS PER PG NO 59	261.61	
		PREMEASURMENTS RECORDED AS PER PG NO 59	104.22	
		PREMEASURMENTS RECORDED AS PER PG NO 60	36.76	
		PREMEASURMENTS RECORDED AS PER PG NO 61	25.24	
		PREMEASURMENTS RECORDED AS PER PG NO 62	11.56	
		Total Quantity	**606.12**	Cum
3	5	Providing and Filling in foundation with granite/trap broken metal 100 mm and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift. complete as per specifications		
		PREMEASURMENTS RECORDED AS PER PG NO 2	5.07	
		PREMEASURMENTS RECORDED AS PER PG NO 31	17.82	
		PREMEASURMENTS RECORDED AS PER PG NO 24	17.46	
		PREMEASURMENTS RECORDED AS PER PG NO 75	41.15	
		Total Quantity	**81.50**	Cum
4	6	KSRB 4-1.1: Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @0.878 cum and fine aggregates @ 0.459cum machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per specifications.		
		PREMEASURMENTS RECORDED AS PER PG NO 3	3.84	
		PREMEASURMENTS RECORDED AS PER PG NO 4	12.00	
		PREMEASURMENTS RECORDED AS PER PG NO 5	33.03	
		PREMEASURMENTS RECORDED AS PER PG NO 32	8.91	
		PREMEASURMENTS RECORDED AS PER PG NO 33	14.49	
		PREMEASURMENTS RECORDED AS PER PG NO 24	18.01	
		PREMEASURMENTS RECORDED AS PER PG NO 43	22.84	
		PREMEASURMENTS RECORDED AS PER PG NO 44	19.98	
		PREMEASURMENTS RECORDED AS PER PG NO 62	9.15	
		PREMEASURMENTS RECORDED AS PER PG NO 62	9.18	
		PREMEASURMENTS RECORDED AS PER PG NO 63	9.19	
		PREMEASURMENTS RECORDED AS PER PG NO 76	14.18	
		Total Quantity	**174.80**	Cum
5	7	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammered dressed in courses not less than 20 cms high, bond stones at 2m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13		
		PREMEASURMENTS RECORDED AS PER PG NO 6	22.15	
		PREMEASURMENTS RECORDED AS PER PG NO 34	16.04	
		PREMEASURMENTS RECORDED AS PER PG NO 34	16.04	
		PREMEASURMENTS RECORDED AS PER PG NO 34	16.04	
		PREMEASURMENTS RECORDED AS PER PG NO 25	40.59	
		Total Quantity	**110.86**	cum

Asst Executive Engineer
Lakes, BBMP

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Excel Measurement Sheet

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RA 1st and Final Bill Abstract

SL.No	Item No.	Description Of Work	Quantity	Unit
6	8	Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 (PWD BCSR 2018-19,P-23,I-5.9)		
		PREMEASURMENTS RECORDED AS PER PG NO 7	12.30	
		PREMEASURMENTS RECORDED AS PER PG NO 34	11.88	
		PREMEASURMENTS RECORDED AS PER PG NO 25	21.06	
		PREMEASURMENTS RECORDED AS PER PG NO 63	41.70	
		PREMEASURMENTS RECORDED AS PER PG NO 64	41.82	
		PREMEASURMENTS RECORDED AS PER PG NO 65	37.60	
		PREMEASURMENTS RECORDED AS PER PG NO 65	2.88	
		Total Quantity	**169.24**	cum
7	9	Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications.		
		PREMEASURMENTS RECORDED AS PER PG NO 8	2.77	
		PREMEASURMENTS RECORDED AS PER PG NO 9	33.03	
		PREMEASURMENTS RECORDED AS PER PG NO 10	1.42	
		PREMEASURMENTS RECORDED AS PER PG NO 35	3.42	
		PREMEASURMENTS RECORDED AS PER PG NO 25	8.70	
		PREMEASURMENTS RECORDED AS PER PG NO 44	30.96	
		PREMEASURMENTS RECORDED AS PER PG NO 68	60.41	
		PREMEASURMENTS RECORDED AS PER PG NO 77	20.58	
		Total Quantity	**161.29**	cum
8	10	Providing and laying in position reinforced cement concrete of Design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregtes @ 0.47cum, with super plasticisers @ 3 liters confirming to is 9103-1999 reafirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. Specification No. KBS 4.1, 4.6 (PWD BCSR 2018-19 P-13 I-4.10)		
		PREMEASURMENTS RECORDED AS PER PG NO 11	22.17	
		PREMEASURMENTS RECORDED AS PER PG NO 78	104.15	
		PREMEASURMENTS RECORDED AS PER PG NO 79	47.12	
		Total Quantity	**173.44**	cum
9	11	Providing T.M.T. steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, lying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and Paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS for TMT Bars Fe 550 (P W D BCSR, 2018-19 P-17 I-4.46.3)		
		PREMEASURMENTS RECORDED AS PER PG NO 12	1.63	
		PREMEASURMENTS RECORDED AS PER PG NO 79	2.85	
		PREMEASURMENTS RECORDED AS PER PG NO 80	8.31	
		Total Quantity	**12.79**	Ton
10	12	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2(PWD BCSR 2018-19,P-15,I-4.31)		
		PREMEASURMENTS RECORDED AS PER PG NO 13	42.80	
		PREMEASURMENTS RECORDED AS PER PG NO 81	189.00	
		PREMEASURMENTS RECORDED AS PER PG NO	274.36	
		Total Quantity	**506.16**	Sqm
11	13	Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications. Specification. No. KBS 2.9		
		PREMEASURMENTS RECORDED AS PER PG NO 21	132.13	
		PREMEASURMENTS RECORDED AS PER PG NO 35	43.07	
		PREMEASURMENTS RECORDED AS PER PG NO 25	7.86	
		PREMEASURMENTS RECORDED AS PER PG NO 70	40.38	
		PREMEASURMENTS RECORDED AS PER PG NO 83	1348.99	
		Total Quantity	**1572.43**	cum

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Asst Executive Engineer
Lakes, BBMP

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Excel Measurement Sheet

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RA 1st and ~~Part~~ Bill Abstract

SL.No	Item No.	Description Of Work	Quantity	Unit
12	14	Providing and constructing burnt brick masonry with approved quality of modular bricks of standard size of class designation 75 (Machine moulded Wirecut bricks) with cement mortar 1 :6 for basement and superstructure with cost of materials, labour charges, scaffolding, curing complete as per specifications. Specification No. KBS 6.2 complete		
		PREMEASURMENTS RECORDED AS PER PG NO 17	14.67	
		PREMEASURMENTS RECORDED AS PER PG NO 36	11.55	
		PREMEASURMENTS RECORDED AS PER PG NO 26	6.03	
		Total Quantity	**32.25**	cum
13	15	Providing ruled pointing to coursed stone masonry with cement mortar 1:4, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications.		
		PREMEASURMENTS RECORDED AS PER PG NO 18	89.20	
		PREMEASURMENTS RECORDED AS PER PG NO 36	114.75	
		PREMEASURMENTS RECORDED AS PER PG NO 27	41.25	
		PREMEASURMENTS RECORDED AS PER PG NO 66	107.78	
		Total Quantity	**352.98**	Sqm
14	16	KSRB 15-16.2 : Providing and finishing external walls in one coat with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered materials, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. (P W D BCSR 2018-19, P-118 I-15.54.1)		
		PREMEASURMENTS RECORDED AS PER PG NO 19	131.87	
		PREMEASURMENTS RECORDED AS PER PG NO 37	101.79	
		PREMEASURMENTS RECORDED AS PER PG NO 27	27.08	
		Total Quantity	**260.74**	Sqm
15	17	Providing and laying plat form using prepolished, water cut / gang saw 40mm thick telephonic Black Granite. laid on existing vertical -supports and fixing in CM 1:3 proportion. Including cutting to required shape, pattern with paper joints, including full rounding for nosing, finished with cement mortar, pointed with colour pigments to match the colour of slab making through jointing with sealant, making holes 25mm x 12mm grooves in joints including curing. (P W D SR 2018-19, P-110 I-14.52)		
		PREMEASURMENTS RECORDED AS PER PG NO 14	253.44	
		PREMEASURMENTS RECORDED AS PER PG NO 37	40.28	
		PREMEASURMENTS RECORDED AS PER PG NO 27	~~23.26~~ 15.96	
		PREMEASURMENTS RECORDED AS PER PG NO 69	33.42	
		Total Quantity	**350.40** 343.10	Sqm
16	18	Providing and laying flooring for corridors/lobbies using combination of pre polished 19 mm thick water cut/gang saw Grey Granite, Black Granite, and strips of 50mm wide pre flamed grey granite using pre polished grey granite 19mm thick 76%, Pre polished black granite 19mm thick @ 2% and preflamed 19mm thick grey granite @ 22% over existing cement concrete bed in CM 1:4 average 20mm thick pointed with white cement/colour pigment etc., complete. (P W D SR 2018-19, P-108 I-14.48.1)		
		PREMEASURMENTS RECORDED AS PER PG NO 22	5.24	
		PREMEASURMENTS RECORDED AS PER PG NO 39	111.70	
		PREMEASURMENTS RECORDED AS PER PG NO 28	71.25	
		Total Quantity	**188.19**	Sqm
17	19	Fabrication supplying and erecting M.S. tubular trusses of all spans as per approved drawing & design with prefabricated steel applications using quality material and are durable, reliable and corrosion and abrasion resistant. Welding shall confirm to latest structural welding code. Quality shall be on various parameters like shape, size, design gauge and polish. The entire trusses is anchored in RCC column by using 4 nos of M.S. anchor bolts at each support with 10mm thick base plate and shoe plate. The work includes cutting, straightening, placing in position of M.S. pipes and welding wherever necessary and applying one coat of redoxide primer coat to all the members including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, letc., complete as per specification (P W D SR 2018-19, P-40 I-7.29)		
		PREMEASURMENTS RECORDED AS PER PG NO 15	10158.80	
		PREMEASURMENTS RECORDED AS PER PG NO 28	4217.92	
		PREMEASURMENTS RECORDED AS PER PG NO 39	8815.28	
		Total Quantity	**23192.00**	Kg

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Asst Executive Engineer,
Lakes, BBMP

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RA 1st and Part Bill Abstract

SL.No	Item No.	Description Of Work	Quantity	Unit
18	20	Providing and fixing 304 - grade stainless steel hand rails of 14-gauge pipes for Ramps staircase made out of stainless steel hallow pipes, using 50mm dia for verticals @1.60 mtr c/c fixed tot he ramps or steps by drilling with bolts and 100mm dia MS base plates 10mm gauge for fixing of Vertical pipes 4 - Nos anchor bolts & 40mm dia pipes fixed horizontally for 2-rows top, one pipes fixed with vertical pipes another one fixed with elbows and 25mm dia pipes are fixed horizontally for 2-rows below top measure @ equal intervals including cutting, welding, bending wherever necessary with suitable caps @ tops, bottoms & corners finishing with mat / shining etc., complete including cost and conveyance of all materials, labour for all items of work, HOM with all lead and lift, loading and unloading, transportation charges and all other incidental charges etc., complete as per specification and directions of the Engineer-in-charge of the work. Ramps or Staircase for physically challenged.		
		PREMEASURMENTS RECORDED AS PER PG NO 20	6.84	
		PREMEASURMENTS RECORDED AS PER PG NO 41	20.52	
		PREMEASURMENTS RECORDED AS PER PG NO 30	7.56	
		PREMEASURMENTS RECORDED AS PER PG NO 47	112.56	
		Total Quantity	**147.48**	Sqm
19	21	Providing and fixing 6mm clear / opal white / solar / bronze / blue / green tinted multi wall poly carbonate sheet for tubular structure. The work including cost of all materials, labour charges and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lifts, transportation, loading and unloading and all other incidental charges etc. complete as per specification and directions of the engineer in charge of the work (P W D SZSR 2018-19, P-50, I-8.27)		
		PREMEASURMENTS RECORDED AS PER PG NO 16	301.69	
		Total Quantity	**301.69**	Sqm
20	22	Providing and laying/fixing cement base, precast, pre polished cement concrete, designer tiles 25mm thick for flooring conforming to IS 1237 heavy duty tiles for flooring, treads of steps and landing, laid on a bed of 12mm thick cement mortar 1:3 mis finished with flush pointing using white cement, including cost of materials, mortar, including cutting, griding the edge to half/full round wherever required, labour, curing complete as per specification.		
		PREMEASURMENTS RECORDED AS PER PG NO 48	259.00	
		Total Quantity	**259.00**	Sqm
21	23	Providing and fixing new Mangalore tile on existing reepers including cost of materials, labour, complete as per specifications. Specifications (P W D SR 2018-19, P-267, I-37.9)		
		PREMEASURMENTS RECORDED AS PER PG NO 40	138.11	
		PREMEASURMENTS RECORDED AS PER PG NO 29	62.64	
		Total Quantity	**200.75**	Sqm
22	24	Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. p.no.121,i.no.15.74		
		PREMEASURMENTS RECORDED AS PER PG NO 23	187.49	
		PREMEASURMENTS RECORDED AS PER PG NO 40	214.82	
		PREMEASURMENTS RECORDED AS PER PG NO 29	100.86	
		Total Quantity	**503.17**	Sqm
23	25	Providing Mangalore Ridge tiles set in C.M. 1:2 and pointed with C.M. 1:2. including cost of materials, labour, HOM complete as per specifications.(P W D SR 2018-19, P-266, I-37.7		
		PREMEASURMENTS RECORDED AS PER PG NO 40	108.00	
		PREMEASURMENTS RECORDED AS PER PG NO 29	52.00	
		Total Quantity	**160.00**	Mtr
24	26	Natural Sand 5.6 to 75 microns complete as per specifications. With all lead and lift as directed by engineer-in-charge of work		
		PREMEASURMENTS RECORDED AS PER PG NO 68	148.05	
		Total Quantity	**148.05**	cum
25	29	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778 having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings, this includes jointing of pipes and fittings with one step solvent cement, trenching, refilling & testing of joints complete, 32mm nominal OD pipes with all lead and lift as directed by engineer-in-charge of work		
		PREMEASURMENTS RECORDED AS PER PG NO 98	222.00	
		Total Quantity	**222.00**	Mtr
26	30	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778 having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings, this includes jointing of pipes and fittings with one step solvent cement, trenching, refilling & testing of joints complete, 50mm nominal OD pipeswith all lead and lift as directed by engineer-in-charge of work		
		PREMEASURMENTS RECORDED AS PER PG NO 101	2814.00	
		Total Quantity	**2814.00**	Mtr

Asst Executive Engineer,
Lakes, BBMP

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RA 1st and ~~Fin~~t Bill Abstract

SL.No	Item No.	Description Of Work	Quantity	Unit
27	31	Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No.KBS32mm nominal OD pipes with all lead and lift as directed by engineer-in-charge of work		
		PREMEASURMENTS RECORDED AS PER PG NO 102	5.00	
		Total Quantity	**5.00**	nos
28	32	Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No.KBS 50mm nominal OD pipes with all lead and lift as directed by engineer-in-charge of work		
		PREMEASURMENTS RECORDED AS PER PG NO 102	5.00	
		Total Quantity	**5.00**	Nos
29	35	Providing and fixing pre cast solid cement concrete kerb stones made out of C.C. 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete. (PWD BCSR 2018-19. P-25, I-5.30		
		PREMEASURMENTS RECORDED AS PER PG NO 46	954.00	
		Total Quantity	**954.00**	Nos
30	36	Providing and laying heavy duty cobble stones 60mm thick interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. Specification No. KBS (P.No. 101, I.No. 14.6 of CSR 2018-19)		
		PREMEASURMENTS RECORDED AS PER PG NO 46	389.43	
		Total Quantity	**389.43**	Sqm
31	37	Supply & fixing of **Pull Down Challenger** : All products must tested and certified to meet EN16630 safety standards with GS test mark. The EN16630 certificates must be issued by a reputed notified International Certifying Body such as IPEMA, TUV, CPSC, or SGS only. The GS mark-EN 16630 certificates must be in the name of a supplier who has carried out a minimum of 100 public park projects in India with EN16630-GS certified products either by themselves or through their dealers or contractors. These EN16630 & GS Mark certificates must be clearly displayed on the notified certifying bodies websites as online verification is mandatory during technical bid. All products must clearly display the GS mark as has been issued in the EN16630 safety certificates. All Tubular steel of 2.5mm thickness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to the thickness of 80 - 120 microns. All metal parts are tested in our salt spray machine that uses a 5% NaCL solution in accordance to ISO7227 to speed up corrosion for 3000 hrs. The seat and backrest is made from Rotomoulded LLDPE. Bearings : Maintenance-free ball bearings. Equipment which have sway and moving parts, must have built in limitors that prevent unwanted and ecesssive movement, which can cause injuries. The limitors must be in accordance with EN16630 safety norms. Scope of delivery : 1 completely pre-assembled equipment modules. Maintenance : Maintain according to EN16630 and the maintenance guide. Size (L*W * H) 2570 MM x 840 MM x 2200 MM . Capacity 2 persons.		
		PREMEASURMENTS RECORDED AS PER PG NO 48	2.00	
		Total Quantity	**2.00**	Nos

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SL.No	Item No.	Description Of Work	Quantity	Unit
32	38	Supply & fixing of Rider : All products must tested and certified to meet EN16630 safety standards with GS test mark. The EN16630 certificates must be issued by a reputed notified International Certifying Body such as IPEMA, TUV, CPSC, or SGS only. The GS mark-EN 16630 certificates must be in the name of a supplier who has carried out a minimum of 100 public park projects in India with EN16630-GS certified products either by themselves or through their dealers or contractors. These EN16630 & GS Mark certificates must be clearly displayed on the notified certifying bodies websites as online verification is mandatory during technical bid. All products must clearly display the GS mark as has been issued in the EN16630 safety certificates. All Tubular steel of 2.5mm thickness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to the thickness of 80 - 120 microns. All metal parts are tested in our salt spray machine that uses a 5% NaCL solution in accordance to ISO7227 to speed up corrosion for 3000 hrs. The seat is made from Rotomoulded LLDPE. Bearings : Maintenance-free ball bearings. Equipment which have sway and moving parts, must have built in limitors that prevent unwanted and ecesssive movement, which can cause injuries. The limitors must be in accordance with EN16630 safety norms. Scope of delivery : 1 completely pre-assembled equipment modules. Maintenance : Maintain according to EN16630 and the maintenance guide. Size (L*W * H) 910 MM x 655 MM x 1210 MM . Capacity 1 person.		
		PREMEASURMENTS RECORDED AS PER PG NO 50	2.00 ✓	
		Total Quantity	**2.00**	Nos
33	39	Supply & fixing of Self Weighted Rower : All products must tested and certified to meet EN16630 safety standards with GS test mark. The EN16630 certificates must be issued by a reputed notified International Certifying Body such as IPEMA, TUV, CPSC, or SGS only. The GS mark-EN 16630 certificates must be in the name of a supplier who has carried out a minimum of 100 public park projects in India with EN16630-GS certified products either by themselves or through their dealers or contractors. These EN16630 & GS Mark certificates must be clearly displayed on the notified certifying bodies websites as online verification is mandatory during technical bid. All products must clearly display the GS mark as has been issued in the EN16630 safety certificates. All Tubular steel of 2.5mm thickness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to the thickness of 80 - 120 microns. All metal parts are tested in our salt spray machine that uses a 5% NaCL solution in accordance to ISO7227 to speed up corrosion for 3000 hrs. The seat and backrest is made from Rotomoulded LLDPE. Bearings : Maintenance-free ball bearings. Equipment which have sway and moving parts, must have built in limitors that prevent unwanted and ecesssive movement, which can cause injuries. The limitors must be in accordance with EN16630 safety norms. Scope of delivery : 1 completely pre-assembled equipment modules. Maintenance : Maintain according to EN16630 and the maintenance guide. Size (L*W * H) 1390 MM x 805 MM x 1198 MM . Capacity 1 person.		
		PREMEASURMENTS RECORDED AS PER PG NO 51	2.00 ✓	
		Total Quantity	**2.00**	Nos
34	40	Supply & fixing of Tai Chi Spinners : All products must tested and certified to meet EN16630 safety standards with GS test mark. The EN16630 certificates must be issued by a reputed notified International Certifying Body such as IPEMA, TUV, CPSC, or SGS only. The GS mark-EN 16630 certificates must be in the name of a supplier who has carried out a minimum of 100 public park projects in India with EN16630-GS certified products either by themselves or through their dealers or contractors. These EN16630 & GS Mark certificates must be clearly displayed on the notified certifying bodies websites as online verification is mandatory during technical bid. All products must clearly display the GS mark as has been issued in the EN16630 safety certificates. All Tubular steel of 2.5mm thickness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to the thickness of 80 - 120 microns. All metal parts are tested in our salt spray machine that uses a 5% NaCL solution in accordance to ISO7227 to speed up corrosion for 3000 hrs. Bearings : Maintenance-free ball bearings. Equipment which have sway and moving parts, must have built in limitors that prevent unwanted and ecesssive movement, which can cause injuries. The limitors must be in accordance with EN16630 safety norms. Scope of delivery : 1 completely pre-assembled equipment modules. Maintenance : Maintain according to EN16630 and the maintenance guide. Size (L*W * H) 1150 MM x 1120 MM x 1620 MM . Capacity 2 persons.		
		PREMEASURMENTS RECORDED AS PER PG NO 52	2.00 ✓	
		Total Quantity	**2.00**	Nos

Asst Executive Engineer
Lakes, BBMP

BRUHAT BANGALORE MAHANAGARA PALIKE

Excel Measurement Sheet

NAME OF WORK : PROVIDING PATHWAY CHILDREN PLAY EQUIPMENTS AND OTHER DEVELOPMENT WORKS IN PARK AT DODDABOMMASANDRA LAKE IN WARD 10

RA 1st and ~~Part~~ Final Bill Abstract

SL.No	Item No.	Description Of Work	Quantity	Unit
35	41	Supply & fixing of Seated Chest Press : All products must tested and certified to meet EN16630 safety standards with GS test mark. The EN16630 certificates must be issued by a reputed notified International Certifying Body such as IPEMA, TUV, CPSC, or SGS only. The GS mark-EN 16630 certificates must be in the name of a supplier who has carried out a minimum of 100 public park projects in India with EN16630-GS certified products either by themselves or through their dealers or contractors. These EN16630 & GS Mark certificates must be clearly displayed on the notified certifying bodies websites as online verification is mandatory during technical bid. All products must clearly display the GS mark as has been issued in the EN16630 safety certificates. All Tubular steel of 2.5mm thickness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to the thickness of 80 - 120 microns. All metal parts are tested in our salt spray machine that uses a 5% NaCL solution in accordance to ISO7227 to speed up corrosion for 3000 hrs. The seat and backrest is made from Rotomoulded LLDPE. Bearings : Maintenance-free ball bearings. Equipment which have sway and moving parts, must have built in limitors that prevent unwanted and ecesssive movement, which can cause injuries. The limitors must be in accordance with EN16630 safety norms. Scope of delivery : 1 completely pre-assembled equipment modules. Maintenance : Maintain according to EN16630 and the maintenance guide. Size (L*W * H) 1955 MM x 730 MM x 1955 MM . Capacity 2 persons.		
		PREMEASURMENTS RECORDED AS PER PG NO 49	2.00	
		Total Quantity	**2.00**	Nos
36	42	Supply & fixing of HD Sit Up Station : All products must tested and certified to meet EN16630 safety standards with GS test mark. The EN16630 certificates must be issued by a reputed notified International Certifying Body such as IPEMA, TUV, CPSC, or SGS only. The GS mark-EN 16630 certificates must be in the name of a supplier who has carried out a minimum of 100 public park projects in India with EN16630-GS certified products either by themselves or through their dealers or contractors. These EN16630 & GS Mark certificates must be clearly displayed on the notified certifying bodies websites as online verification is mandatory during technical bid. All products must clearly display the GS mark as has been issued in the EN16630 safety certificates. All Tubular steel of 2.5mm thickness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to the thickness of 80 - 120 microns. All metal parts are tested in our salt spray machine that uses a 5% NaCL solution in accordance to ISO7227 to speed up corrosion for 3000 hrs. The seat is made from Rotomoulded LLDPE. Bearings : Maintenance-free ball bearings. Equipment which have sway and moving parts, must have built in limitors that prevent unwanted and ecesssive movement, which can cause injuries. The limitors must be in accordance with EN16630 safety norms. Scope of delivery : 1 completely pre-assembled equipment modules. Maintenance : Maintain according to EN16630 and the maintenance guide. Size (L*W * H) 1365 MM x 1335 MM x 700 MM . Capacity 2 persons.		
		PREMEASURMENTS RECORDED AS PER PG NO 53	2.00	
		Total Quantity	**2.00**	Nos
37	43	Supply & fixing of HD Health Walker :All products must tested and certified to meet EN16630 safety standards with GS test mark. The EN16630 certificates must be issued by a reputed notified International Certifying Body such as IPEMA, TUV, CPSC, or SGS only. The GS mark-EN 16630 certificates must be in the name of a supplier who has carried out in excess of at least 50 public park projects in India either by themselves or through their dealers or contractors. These EN16630 & GS Mark certificates must be clearly displayed on the notified certifying bodies websites as online verification is mandatory. All products must clearly display the GS mark as has been issued in the EN16630 safety certificates. All Tubular steel of 2.5mm thickness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to the thickness of 80 - 120 microns. All metal parts are tested in our salt spray machine that uses a 5% NaCL solution in accordance to ISO7227 to speed up corrosion for 3000 hrs. Footplates made of alloys of Nylon having good thermal stability. Internal Limited means no bump stops or crush points. Bearings : Maintenance-free ball bearings. Scope of delivery : 1 completely pre-assembled equipment modules. Maintenance : Maintain according to EN16630 and the maintenance guide. Size (L*W * H) 1070 MM x 615 MM x 1360 MM . Capacity 1 person.		
		PREMEASURMENTS RECORDED AS PER PG NO 55	2.00	
		Total Quantity	**2.00**	Nos

Asst Executive Engineer
Lakes, BBMP

BRUHAT BANGALORE MAHANAGARA PALIKE

Excel Measurement Sheet

NAME OF WORK : PROVIDING PATHWAY CHILDREN PLAY EQUIPMENTS AND OTHER DEVELOPMENT WORKS IN PARK AT DODDABOMMASANDRA LAKE IN WARD 10

RA 1st and ~~Part~~ Bill Abstract

SL.No	Item No.	Description Of Work	Quantity	Unit
38	44	Supply & fixing of HD Squat Pushing : All products must tested and certified to meet EN16630 safety standards with GS test mark. The EN16630 certificates must be issued by a reputed notified International Certifying Body such as IPEMA, TUV, CPSC, or SGS only. The GS mark-EN 16630 certificates must be in the name of a supplier who has carried out a minimum of 100 public park projects in India with EN16630-GS certified products either by themselves or through their dealers or contractors. These EN16630 & GS Mark certificates must be clearly displayed on the notified certifying bodies websites as online verification is mandatory during technical bid. All products must clearly display the GS mark as has been issued in the EN16630 safety certificates. All Tubular steel of 2.5mm thickness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to the thickness of 80 - 120 microns. All metal parts are tested in our salt spray machine that uses a 5% NaCL solution in accordance to ISO7227 to speed up corrosion for 3000 hrs. The seat and backrest is made from Rotomoulded LLDPE. Bearings : Maintenance-free ball bearings. Equipment which have sway and moving parts, must have built in limitors that prevent unwanted and ecesssive movement, which can cause injuries. The limitors must be in accordance with EN16630 safety norms. Scope of delivery : 1 completely pre-assembled equipment modules. Maintenance : Maintain according to EN16630 and the maintenance guide. Size (L*W * H) 2270 MM x 635 MM x 1640 MM . Capacity 2 persons.		
		PREMEASURMENTS RECORDED AS PER PG NO 54	2.00	
		Total Quantity	**2.00**	Nos
39	45	Supply & fixing of HD Mini Ski :All products must tested and certified to meet EN16630 safety standards with GS test mark. The EN16630 certificates must be issued by a reputed notified International Certifying Body such as IPEMA, TUV, CPSC, or SGS only. The GS mark-EN 16630 certificates must be in the name of a supplier who has carried out in excess of at least 50 public park projects in India either by themselves or through their dealers or contractors. These EN16630 & GS Mark certificates must be clearly displayed on the notified certifying bodies websites as online verification is mandatory. All products must clearly display the GS mark as has been issued in the EN16630 safety certificates. All Tubular steel of 2.5mm thickness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to the thickness of 80 - 120 microns. All metal parts are tested in our salt spray machine that uses a 5% NaCL solution in accordance to ISO7227 to speed up corrosion for 3000 hrs. Footplates made of alloys of Nylon having good thermal stability. Internal Limited means no bump stops or crush points. Bearings : Maintenance-free ball bearings. Scope of delivery : 1 completely pre-assembled equipment modules. Maintenance : Maintain according to EN16630 and the maintenance guide. Size (L*W * H) 1150 MM x 900MM x 1285 MM . Capacity 2 persons.		
		PREMEASURMENTS RECORDED AS PER PG NO 56	2.00	
		Total Quantity	**2.00**	Nos
40	46	Supply & fixing of HD Waist Twister :All products must tested and certified to meet EN16630 safety standards with GS test mark. The EN16630 certificates must be issued by a reputed notified International Certifying Body such as IPEMA, TUV, CPSC, or SGS only. The GS mark-EN 16630 certificates must be in the name of a supplier who has carried out in excess of at least 50 public park projects in India either by themselves or through their dealers or contractors. These EN16630 & GS Mark certificates must be clearly displayed on the notified certifying bodies websites as online verification is mandatory. All products must clearly display the GS mark as has been issued in the EN16630 safety certificates. All Tubular steel of 2.5mm thickness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to the thickness of 80 - 120 microns. All metal parts are tested in our salt spray machine that uses a 5% NaCL solution in accordance to ISO7227 to speed up corrosion for 3000 hrs. Footplates made of alloys of Nylon having good thermal stability. Internal Limited means no bump stops or crush points. Bearings : Maintenance-free ball bearings. Scope of delivery : 1 completely pre-assembled equipment modules. Maintenance : Maintain according to EN16630 and the maintenance guide. Size (L*W * H) 1460 MM x 1310 MM x 1150 MM . Capacity 3 persons.		
		PREMEASURMENTS RECORDED AS PER PG NO 57	2.00	
		Total Quantity	**2.00**	Nos

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Asst Executive Engineer
Lakes, BBMP

BRUHAT BANGALORE MAHANAGARA PALIKE

Excel Measurement Sheet

NAME OF WORK : PROVIDING PATHWAY CHILDREN PLAY EQUIPMENTS AND OTHER DEVELOPMENT WORKS IN PARK AT DODDABOMMASANDRA LAKE IN WARD 10

RA 1st and ~~Part~~ Final Bill Abstract

SL.No	Item No.	Description Of Work	Quantity	Unit
41	47	Supply & fixing of Leg Stretch : All products must tested and certified to meet EN16630 safety standards with GS test mark. The EN16630 certificates must be issued by a reputed notified International Certifying Body such as IPEMA, TUV, CPSC, or SGS only. The GS mark-EN 16630 certificates must be in the name of a supplier who has carried out a minimum of 100 public park projects in India with EN16630-GS certified products either by themselves or through their dealers or contractors. These EN16630 & GS Mark certificates must be clearly displayed on the notified certifying bodies websites as online verification is mandatory during technical bid. All products must clearly display the GS mark as has been issued in the EN16630 safety certificates. All Tubular steel of 2.5mm thickness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to the thickness of 80 - 120 microns. All metal parts are tested in our salt spray machine that uses a 5% NaCL solution in accordance to ISO7227 to speed up corrosion for 3000 hrs. Bearings : Maintenance-free ball bearings. Equipment which have sway and moving parts, must have built in limitors that prevent unwanted and ecesssive movement, which can cause injuries. The limitors must be in accordance with EN16630 safety norms. Scope of delivery : 1 completely pre-assembled equipment modules. Maintenance : Maintain according to EN16630 and the maintenance guide. Size (L*W * H) 935 MM x 810 MM x 1135 MM . Capacity 3 persons.		
		PREMEASURMENTS RECORDED AS PER PG NO 58	2.00	
		Total Quantity	**2.00**	
42	49	Supply and fixing of childern Play Equipment Fiero A Swing : Shaped structural posts of height 2.31 m are to be schedule HOT DIP Galvanized steel with a 114mm OD and 2.2mm (wall) thickness of the tubing. Plastic Components such as swing seats [super thick plastic] shall be animated and shall be rotationally molded from antistatic, copolymer, virgin linear low density UV stabilized polyethylene, with color molded in and minimum thickness of 6 - 8mm. The rates are to be inclusive of supply and installation at site.		
		PREMEASURMENTS RECORDED AS PER PG NO 32	2.00	
		Total Quantity	**2.00**	Nos
43	50	Supply and fixing of childern Play Equipment Monker Bar VFM Support posts of height 1.82 m are to be schedule Galvanized steel with a 60 mm OD {Outer Diameter}.All the posts are to be finished with a baked on powder coat finish. Handrail of size 1.3 m and Dia 48 mm shall be an welded unit, fabricated from 48 O.D. galvanized steel pipes with a baked on powder coating finish. Bolts, nuts, screws, washers and etc used for assembly shall be stainless steel 304 grade and shall be of tamper resistant stainless steel. Electro - statically applied polyester powder must have a tough finish with maximum durability. The rates are to be inclusive of supply and installation at site.		
		PREMEASURMENTS RECORDED AS PER PG NO 32	2.00	
		Total Quantity	**2.00**	Nos
44	51	Supply and fixing of childern Play Equipment Four Seater Seesaw : SPECIFICATIONS The See Saw consists of 2 poles of Dia 114mm and thickness of 2.5mm which balances the horizontal rod at the center which is of size 3110 mm length and Dia 114 mm. It consists of 4 seats which is made of LLDPE virgin plastic of size 305mm X 213 mm X 125 mm. The rates are to be inclusive of supply and installation at site.		
		PREMEASURMENTS RECORDED AS PER PG NO 32	2.00	
		Total Quantity	**2.00**	Nos
45	52	Supply and fixing of childern Play Equipment Merry go round - DX : The Merry go round consists of a round platform which is made of galvanized steel and has a thickness of 2.5 mm. It is also power coated with the thickness of 2.5 mm. It is of Dia 1210 mm. It has 3 inverted "L" shaped handrails which is made of Galvanized steel and of dimensions as 474 mmx 815 mm. It has thickness of Dia 32 mm. The 3 handrails are separated exactly. All the 3 handrails are connected to the Centre with the help of a rod which is also made of Galvanized steel and of Dia 48 mm and height 815 mm. The rates are to be inclusive of supply and installation at site.		
		PREMEASURMENTS RECORDED AS PER PG NO 32	2.00	
		Total Quantity	**2.00**	Nos
46	53	Supply and fixing of childern Play Equipment Puppy dog Rider / Elephant rider / Horse rider : : HDPE of size 0.83 m x 0.31 m x 0.87 m, Plastic Components [super thick plastic] shall be rotationally molded from antistatic, copolymer, virgin linear low density UV stabilized polyethylene, with "color molded" in not "added in". All rotational molding is carried out in state of the art, precision, bi axial roto moulding machines which helps achieve guaranteed uniform wall thickness, seamless joints, accurate process control, one part construction to make it stress free. Specialized connectors such as clamps and couplings are to be cast from aluminium which is pre-treated, and cured, with a baked on powder coat finish.The rates are to be inclusive of supply and installation at site.		
		PREMEASURMENTS RECORDED AS PER PG NO 33	2.00	
		Total Quantity	**2.00**	Nos

Asst Executive Engineer
Lakes, BBMP

BRUHAT BANGALORE MAHANAGARA PALIKE

Excel Measurement Sheet

NAME OF WORK : PROVIDING PATHWAY CHILDREN PLAY EQUIPMENTS AND OTHER DEVELOPMENT WORKS IN PARK AT DODDABOMMASANDRA LAKE IN WARD 10

RA 1st and Final Bill Abstract

SL.No	Item No.	Description Of Work	Quantity	Unit
47	54	Supply and fixing of childern Play Equipment Creppy Crawly climber: The wavey support bars are of height 1.5 m are to be schedule HOT DIP Galvanized steel with a 48 mm OD. Powder coatings used is Akzo Nobel's. The finished products have the following typical characteristics: 0.5mm thickness, oven cured between 191oC and 220oC, to achieve Flexibility, Impact, Salt Spray {Corrosion} Resistance, Hardness, and Adhesion. All post caps are to be cast from aluminum which is pretreated, cured and sandblasted, 114mm diameter, with a baked on powder coat finish.Handrail of height Dia 32 mm shall be an all-robotic welded unit, fabricated from 32 O.D. galvanized steel pipes with a baked on powder coating finish. The Electro- statically applied polyester powder has a tough finish with maximum durability using AkzoNobel INTERPON paints application, and dual zone cure oven to a thickness of 0.5mm thickness, oven cured between 191oC and 220oC. Exposed hardware shall be covered with ultra violet stabilized plastic safety caps as per EN1176 standards as a safety feature against protruding hardware, aesthetic pleasing against ugly exposed hardware and prevention against vandalism as well.The rates are to be inclusive of supply and installation at site.		
		PREMEASURMENTS RECORDED AS PER PG NO 33	2.00	
		Total Quantity	**2.00**	Nos
48	EI-1	Earthwork excavation by manual means for foundation of buildings, water supply and sanitary lines and electrical conduits etc, either in pits or in trenches 1.5m and above in width, in soil notexceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m.including breaking of clods complete as per specifications.in ordinary soil.		
		PREMEASURMENTS RECORDED AS PER PG NO 90	1266.30	
		Total Quantity	**1266.30**	cum
49	EI-2	Providing and removing centering, shuttering, strutting, propping & removal of form work etc., for edges of slabs and breaks in floor including cost of all materials, labour complete as per specifications.		
		PREMEASURMENTS RECORDED AS PER PG NO 91	95.56	
		Total Quantity	**95.56**	Sqm
50	EI-3	Providing and applying ready mix priming coat over concrete / masonry / asbestos cement sheet / plastered surfaces including preparing the surface after thoroughly cleaning of oil, grease, dirt and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications.		
		PREMEASURMENTS RECORDED AS PER PG NO 91	253.73	
		Total Quantity	**253.73**	Sqm
51	EI-4	Providing and applying spray painting (excluding priming coat) over concrete / masonry / asbestos cement sheet / plastered surfaces with flat wall paint of approved brand to give evenshade after cleaning the surface of all dirt, dust and other foreign matter, and sand papering including cost of materials, labour, complete as perspecifications.spray painting in two coat.		
		PREMEASURMENTS RECORDED AS PER PG NO 87	253.73	
		Total Quantity	**253.73**	Sqm
52	EI-5	Providing casing embankment using semi-pervious soil from approved borrow areas in layers of 250 to 300 mm before compaction including cost of all materials, machinery, labour, all other operations such as excavation, sorting out, transportation, spreading soil to specified thickness, breaking clods, sectioning, watering, compacting to density control of not less than 95 percent using power roller etc., complete with initial lead all lifts. (MI BCSR 2018-19.P-35,I-2.36)		
		PREMEASURMENTS RECORDED AS PER PG NO 87	370.22	
		Total Quantity	**370.22**	cum
53	EI-6	Providing and installing of approved make pre painted Galvalume iron Accessories, like, plain, ridges, plain gutter, plain flashing, corner Trim, etc The total coated thickness (TCT) of the sheet shall be 0.47 mm +/- 0.02 tolerance mm Zinc-Alu Alloy coating AZ 150 gsm as per ASTM 1397/755 -550 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 20-22 microns using self drilling / self tapping screws of 25 mm length. (width upto 500-600 mm only), to be fixed over the existing purlins, rafters, channels and trusses.		
		PREMEASURMENTS RECORDED AS PER PG NO 86	16.83	
		Total Quantity	**16.83**	Sqm
54	EI-7	Providing half nosing for 40mm thick granite slab using required machinery including cost and conveyance of all materials, labour for all items of work, HOM etc., complete as per specification		
		PREMEASURMENTS RECORDED AS PER PG NO 86	461.80	
		Total Quantity	**461.80**	Mtr
55	EI-8	Supplying and fixing M.S. Rectangular poles made out of 2 equal angles of 65x65x6 mm welded together and fixed in CC (1:2:4) WITH 2 NOS 16mm dia M.S. hold fast rods each of length 25 cms. Including cost of all materials cutting, bending scaffolding wherever necessary, nicely finishing the welded joints with all lead lifts and as per the directions of the Engineer-in - charge of the work and including providing 2 coats of approved quality paint over one coat of shop painting (excluding cost of earthwork and concrete) including cost of materials, labour, HOM complete as per specifications		
		PREMEASURMENTS RECORDED AS PER PG NO 86	86.10	

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Asst Executive Engineer
Lakes, BBMP

BRUHAT BANGALORE MAHANAGARA PALIKE

Excel Measurement Sheet

NAME OF WORK : PROVIDING PATHWAY CHILDREN PLAY EQUIPMENTS AND OTHER DEVELOPMENT WORKS IN PARK AT DODDABOMMASANDRA LAKE IN WARD 10

RA 1st and ~~Part~~ Final Bill Abstract

SL.No	Item No.	Description Of Work	Quantity	Unit
		Total Quantity	**86.10**	Mtr
56	EI-9	Providing and fixing M.S. Block pipe of 38mm dia, of heavy guage of 14 including removing the bends, cutting the pipe, and fixing pipe in between the existing two verticle poles (M.S. rectangular poles) and spot welding the chain link with M.S. block pipe including cost of all materials wastage in cutting, and scaffolding wherever necessary with all lead and lift as directed by the Engineer-in-charge of work etc., complete including two coats of approved quality paint over one coat of shop paint, including cost of materials, labour, HOM complete as per specifications		
		PREMEASURMENTS RECORDED AS PER PG NO 86	297.30	
		Total Quantity	**297.30**	Mtr
57	EI-10	Providing chain link fencing 50mm size of 8 guage properly stretched between existing rectangular poles and fixed with suitable bolts & nuts, the free ends shall be welded to the pole and block pipe at top and bottom as required including cost of all materials, labour, lead and lifts and as per the directions of the Engineer-in-charge of work including two coats of approved quality paint over one coat of shop paint, including cost of materials, labour, HOM complete as per specifications		
		PREMEASURMENTS RECORDED AS PER PG NO 86	148.65	
		Total Quantity	**148.65**	Sqm
58	EI-11	Providing and laying reinforced cement concrete pipe NP3 for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour, curing, including cost of materials, labour, HOM complete as per specifications. 900mm. dia		
		PREMEASURMENTS RECORDED AS PER PG NO 84	17.50	
		Total Quantity	**17.50**	Mtr

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